

SUCCESSFUL APPLICATIONS



Mass Finishing Success Story No. SBEH0004USA - Industry: Medical Instruments

Placing a non-reflective, fine finish on surgical pliers.



APPLICATION

Processing aim	Placing a non-reflective, mat finish on pre-polished medical pliers without making the surface significantly rougher
Process description	The pre-polished pliers undergo a gentle manual wet blast process to remove the glare from the polished surface. Low production volume does not justify an automatic solution
Previous finishing method	Dry blasting: Process was not dust-free; process sometimes caused media impregnation on the parts!

WORK PIECES

Work piece name	Surgical pliers	Weight: (min/max)	0.8 lbs.
Material	Stainless steel 320	Dimensions (min/man)	Up to 6 x 3"
Manufacturing method	Forging, machining, grinding	Condition of raw parts	Parts have been pre-polished to Ra = 4 micro inches
Description	Different types of medical tweezers with different tips		

THE RÖSLER SOLUTION

The Process	After having been pre-polished in a mass finishing paste process, the pliers receive a non-reflective, mat finish in a gentle wet blast process. The Ra value increases somewhat to about 6 micro inches
Competition	None: Rosler could offer the polishing and wet blasting solution

EQUIPMENT DETAILS

PROCESS PARAMETERS

Machine/model	Rösler wet blast cabinet with turn table. Allows manual and semi-automatic blasting	Media Type/Size	350 grit glass beads; slurry concentration about 25%
Equipment description	Rösler wet blast cabinet equipped with turn table and one manual blast gun	Batch or Continuous	Continuous, manual blasting of one part at a time
Blast System	Wet blast	Batch Size	N/A
Air Pressure/Nozzle qty	NA / 1 gun	Process Time	2 minutes
Dust Collector Type	N/A	Feed Rate (continuous)	One part every three minutes
Noise Protection	Not applicable	Capacity/hour	30 parts/hour



Surgical instruments must be very smooth to prevent bacteria infection. But at the same time, they must have a mat, non-reflective finish to prevent glare during surgery. Wet blasting produces such non-reflective finishes without jeopardizing the initial smooth surface.

The Rosler wet blast cabinet is equipped with turntable allowing manual as well as semi-automatic blasting of different types of work pieces.

Wet blasting offers numerous advantages:

- Dust-free operation
- Gentle to aggressive blasting
- No metal erosion or media impregnation in the work pieces.
- No heat warping of thin parts
- Has a cleaning effect, even without chemicals
- Allows gentle shot peening
- Creates very fine textured finishes.

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finding a better way...

Rosler Metal Finishing USA is the leader in mass finishing, shot blasting, automated processes and media - made in the USA. Visit www.rosler.us or call 269-441-3000 for more information.

